

Supplementary File 4. Characteristics of studies included in the synthesis

Study	Health conditions and symptoms	Study aims/design	Study population	Type and format of approaches	Constructs of symptom appraisal addressed	Summary of approaches or its component pertaining to symptom appraisal	Underlying theories/models	Evaluation of approaches
Cancer								
Dine et al, 2011(1)	BCLE	To describe a low-cost BCLE self-monitoring technique using case study analysis: interview with a key informant who initiated the program	Women affected by BCLE	Education sessions	Symptom detection (demonstration) and response	Education on comparison of a pre-cancer treatment (baseline) limb assessment to ongoing post-cancer treatment limb assessments <ul style="list-style-type: none"> • Demonstration of circumferential measurement • Utilization of tracing to assist in identifying anatomical landmarks for circumferential measurement • Observing for skin changes in case of potentially life-threatening infection 	Nil	NA
Brailley et al, 1986(2)	Breast cancer	A quasiexperimental study to examine the effects of two health education intervention (group vs individual teaching) on health knowledge, beliefs, skill, and confidence in	Women employees from one business firm	Education sessions and materials (film, pamphlet)	Symptom detection (demonstration and hands-on practice)	Group teaching: <ul style="list-style-type: none"> • Introduction, film and discussion on breast cancer and BSE • Demonstration and hands-on practice of BSE • Education material on BSE Individual teaching: <ul style="list-style-type: none"> • Introduction and discussion on breast cancer and BSE • Demonstration and hands-on practice of BSE • Education material on BSE 	Predisposing, Reinforcing, and Enabling Causes in Educational Diagnosis and Evaluation (PRECEDE) Model(3)	Frequency, skills and confidence in BSE; additional sources of information and perceived support; health knowledge; health beliefs; and prior experience with breast lumps or cancer in self or significant others assessed before and 4 months

		practicing BSE and to identify factors that influence the frequency of this practice						after the intervention
Burges et al, 2008(4)	Breast cancer	Development of a psycho-educational intervention to promote early presentation of breast cancer among women	Women who were attending for or had recently received their final routine mammogram and women in the general population aged > 65 years	Education sessions and materials (booklet with graphics and illustrations using cartoon characters, photographs of symptoms)	Symptom detection (demonstration) and response (role modelling)	<p>A booklet:</p> <ul style="list-style-type: none"> • Absolute and relative risk of developing breast cancer (graphics) • Breast cancer symptoms and detection • Role-modelling: illustration of help-seeking • Action-planning upon symptom detection • Positive feelings for prompt help-seeking <p>Radiographer-delivered interview (key components):</p> <ul style="list-style-type: none"> • Photographs of early symptoms of breast cancer symptoms • Detections of breast changes using a silicone model • Reinforcing help-seeking for breast changes 	Self-Regulation Theory(5), Theory of Planned Behavior(6), Implementation Intentions(7) and Social Cognitive Theory(8)	NA
Byrne et al, 2009(9)	Breast cancer	To evaluate whether participation in a community-based breast cancer education party would increase women's	Women in the general population	Education sessions and materials (pictures or illustrations)	Symptom detection (demonstration and hands-on practice) and response	<p>Education programs/parties:</p> <ul style="list-style-type: none"> • Gaming strategies: to increase knowledge related to breast cancer using pictures or illustrations <ul style="list-style-type: none"> ○ Risk ○ Prevention ○ Early detection • Demonstration of BSE 	Nil	Reviewing of education materials, education sessions, conduction of education parties, data entry, contacting participants and

		participation in screening activities				<ul style="list-style-type: none"> ○ Hands-on practice: palpation of breast models • Appointments for screening as appropriate 		appointment for breast cancer screening
Craun et al, 1987(10)	Breast cancer	To study the effectiveness of the Health belief model in predicting BSE behavior and the effectiveness of training formats in altering BSE knowledge, attitudes and frequency using a 2 (information) x 2 (demonstration) x 2 (prompts) factorial design	Female college students	Education sessions and materials (pamphlet)	Symptom detection (demonstration and hands-on practice)	<p>Training formats:</p> <ul style="list-style-type: none"> • Information: <ul style="list-style-type: none"> ○ A lecture about breast cancer and BSE • Demonstration: <ul style="list-style-type: none"> ○ Demonstration and hands-on practice of BSE on a breast model • Prompt: <ul style="list-style-type: none"> ○ A pamphlet explaining the technique of BSE ○ Monthly reminders to practice BSE 	Health Belief Model(11)	Knowledge of breast cancer, knowledge of BSE procedures, attitudes relevant to BSE behavior, cues associated with BSE and frequency of BSE assessed prior to, 1 month post, 3 months post and 6 months post intervention
Khokhar et al, 2009(12)	Breast cancer	To assess the effectiveness of short text messages (SMS) as a reminder system for regular practice of BSE	Women more than 20 years of age working for a private organization	Education sessions and materials (video clip and pamphlet)	Symptom detection (demonstration and hands-on practice)	<p>Education program:</p> <ul style="list-style-type: none"> • A talk on BSE • Demonstration and hands-on practice of BSE on breast model • A video clip on BSE • SMS reminders sent to each woman towards the end of her menstrual period that is the appropriate time to do BSE 	Nil	Practice of BSE

						<ul style="list-style-type: none"> • Pamphlet on BSE 		
McLendon et al, 1982(13)	Breast cancer	To assess the effect of one-to-one BSE teaching on retention of knowledge and accuracy of performance among subjects randomly assigned to control or experimental group	Women with low socioeconomic status from a family planning clinic	Education sessions (one-to-one)	Symptom detection (hands-on practice) and response	<p>One-to-one instruction on BSE:</p> <ul style="list-style-type: none"> • Description of steps • Hands-on practice • Help-seeking upon detection of any changes 	Nil	BSE knowledge and practice and personal beliefs about BSE and breast cancer assessed pre and 2 months post instruction
Shepherd et al, 2007(14)	Breast cancer	To determine the effectiveness of knowledge regarding BSE education and its impact towards early detection of breast cancer using a descriptive-observational design	Women who attended the Breast Week	Education sessions and materials (multimedia: radio)	Symptom detection (demonstration) and response	<p>Breast Week:</p> <ul style="list-style-type: none"> • Advertisement of the Breast Week on radio programmes and in the communities • A radio discussion on breast cancer and BSE prior to the Breast Week • A call for women to undergo a free breast examination and routine teaching on how to examine their breasts • Women had their breasts examined and at the same time were taught what to observe for and when to report any abnormalities detected • Women were instructed to perform breast examination and where to seek help in 	Orem's Self Care Nursing Model(15)	Direct observation of participants' skills in performing BSE (breast inspection, breast palpation and detection of abnormalities) using a checklist

						the event of any deviation from the normal		
Sorensen et al, 2005(16)	Breast cancer	To investigate the effect of a community-based BSE training program on women's knowledge, attitudes and behavior in relation to BSE	Women had and had not participated in the BSE training program	Education sessions (video)	Symptom detection (demonstration)	BSE training program: <ul style="list-style-type: none"> • A locally produced video • Individual instruction on breast models and the women's own breasts 	Nil	Knowledge, attitude and behavior (frequency, technique and actions take upon detection of breast changes) of BSE
Stratton et al, 1994(17)	Breast cancer	To determine 1) BSE proficiency by observation and 2) reduction of BSE proficiency as a function of weeks post training	Women who responded to radio and newspaper advertisements for free BSE training	Education sessions and materials (film and booklet)	Symptom detection (demonstration)	One-on-one BSE (MammaCare) session: <ul style="list-style-type: none"> • BSE using women's own breast and a tissue-matched silicone breast model • Appropriate corrections in technique • A 45-min film reviewing the MammaCare method of BSE • Reminder stickers • A booklet, The MammaCare Method: Your Personal Manual 	Nil	MammaCare evaluation of proficiency performance for self modelling, a tissue-matched silicon breast model and the Toronto Breast Self-Examination Instrument
Styrd et al, 1982(18)	Breast cancer	To stimulate employees to take an active interest in their own health care, to promote awareness as to the importance of performing	Female employees of a company	Education sessions and materials (film and publication)	Symptom detection (demonstration)	Education session: <ul style="list-style-type: none"> • An introduction to the need for practicing SSE • A discussion of basic anatomy and physiology of breast tissue, signs and symptoms of breast disease, statistical data on occurrence of breast cancer, and diagnostic techniques 	Nil	BSE behavior assessed prior to, 3 months after and 1 year after the program

		routine BSE, to teach proper BSE technique, and to increase frequency of BSE among those already practicing it				<p>used in the diagnosis of breast disease</p> <ul style="list-style-type: none"> The American Cancer Society (ACS) film, How to Examine Your Breasts, which discusses techniques used in SSE Additional discussion of breast abnormalities, risk factors, and newer treatment methods <p>Education material:</p> <ul style="list-style-type: none"> The ACS publication: How to Examine Your Breasts 		
Luther et al, 1985(19)	Breast cancer and testicular cancer	To promote the concept of early detection of cancer to high school students by teaching the topics of breast and testicular self-examination	High school teachers, school nurses, and other interested community educators	Education sessions and materials (movies)	Symptom detection (demonstration)	<p>Education packet:</p> <ul style="list-style-type: none"> The breast and testicular self-examination curriculum Overhead transparencies to aid in teaching breast and testicle anatomy Samples of written materials Movies on breast and testicular self-examination Breasts and testicle models <p>Education workshop:</p> <ul style="list-style-type: none"> Background information about breast and testicular cancer How to teach breast and testicular self-examination How to use materials available to teach breast and testicular self-examination Recovered breast and testicular cancer patients discussing their experiences 	Nil	Teacher satisfaction; student self-exams, knowledge about BSE and TSE, and attitudes toward early cancer detection
Corneil et al,	Melanoma	To compare the ability of	Lay persons	Education materials	Symptom interpretation	Online melanoma identification task using different training:	Nil	Sensitivity, specificity and

2015(20)		volunteers to distinguish between images of melanomas and mimics of melanoma using various training strategies	who visited the website created for the study in a 3-week period	(photographs)	n (comparison)	<ul style="list-style-type: none"> • Rule-based training using the written ABC criteria: 'D' for diameter of the ABC(D) criteria was excluded because the images used in the study were not presented as life size on the computer monitor • Image training: photographs of 80 melanoma, 300 seborrheic keratoses and 300 benign naevi <ul style="list-style-type: none"> ○ Expert melanoma training set ○ Expert benign training set ○ Layperson-selected melanoma set 		accuracy in identification of melanoma
Robertson et al, 2014(21)	Melanoma	To compare image training using a 6 (experimental set of images) x 2 (benign class) x 3 (training method) design	Laypeople recruited from friends and family of staff, relatives of patients, and undergraduate students	Education materials (video and images of skin lesions)	Symptom interpretation (comparison)	<p>Education materials:</p> <ul style="list-style-type: none"> • A 3-min video: brief overview of skin cancer • Images of skin lesions with different experimental sets, benign class and training method (Control, ABC criteria, or Image) <ul style="list-style-type: none"> ○ 42 'training' lesions (21 melanomas and 21 benign) ○ 48 'test' lesions (12 melanomas and 36 benign) 	Nil	Diagnostic accuracy, sensitivity and specificity in distinguishing between melanomas and mimics of melanoma
Scott et al, 2012(22)	Oral cancer	To assess the immediate and short term effect of a theory-based intervention to	Patients aged between 45 and 65 years of age who	Education sessions and materials (leaflet)	Symptom detection (hands-on practice) and response	<p>One-to-one plus leaflet instruction:</p> <ul style="list-style-type: none"> • Assessing knowledge and understanding of detecting oral cancer early, and 	Self-Regulation Theory(23, 24), Social Cognitive Theory(8)	Knowledge of oral cancer, anticipated delay for signs of oral cancer, perceived confidence to

		encourage early detection and presentation of oral cancer in the “at risk” population randomly assigned to control, leaflet or one-to-one instruction group	smoked and had no prior history of oral cancer			<p>providing correct information where appropriate</p> <ul style="list-style-type: none"> Addressing barriers to seeking help Outlining the procedure of mouth self-examination, and providing an opportunity for the participant to perform mouth self-examination with receipt of feedback 		seek help, understanding of MSE, perceived confidence to perform MSE, likelihood of monthly MSE and emotion response to MSE assessed at baseline, post-intervention, and 1 month follow-up
Brooks et al, 2001(25)	Skin cancer	To investigate the use of simplified instructions to facilitate holistic assessment of skin lesions	Undergraduate psychology students	Education materials (pictures of skin lesions)	Symptom interpretation (comparison)	<p>Experiment 1: a series of pictures of skin lesions</p> <ul style="list-style-type: none"> Harmless lesions: 1 freckle, 4 seborrheic keratoses and 5 compound naevi Warning lesions: 10 dysplastic or atypical naevi Cancerous lesions: 1 squamous cell carcinoma, 2 basal cell carcinomas, 2 nodular melanomas and 5 superficial spreading melanomas <p>Experiment 2: 36 pair comparisons of the 9 representative lesions</p> <ul style="list-style-type: none"> Freckle Compound melanocytic nevus Seborrheic keratosis Dysplastic nevus Basal cell carcinoma Squamous cell carcinoma Low risk superficial spreading melanoma 	Nil	Discrimination between benign and malignant skin lesions assessed before and after exposure to education materials

						<ul style="list-style-type: none"> Moderate risk superficial spreading melanoma High risk superficial spreading melanoma 		
Respiratory diseases								
Butz et al, 2005(26)	Asthma: persistent cough, wheeze and intercostal retractions	A cross-sectional analysis of asthma home management skills in parents and children enrolled in an ongoing randomized clinical trial of an asthma educational intervention	Families with children aged 2-8 years who have asthma	Education sessions	Symptom identification, interpretation (comparison) and response	Symptom identification/nebulizer educational intervention: <ul style="list-style-type: none"> Symptom identification <ul style="list-style-type: none"> Review of early and late symptoms Comparison of normal breathing to breathing patterns during an acute asthma episode Nebulizer use 	Model of Symptom Management(27)	Parents' ability to recognize symptoms and nebulizer-use technique using structured questionnaire and demonstration of nebulizer use
Colland et al, 2004(28)	Asthma	To investigate whether it is feasible to teach patients to recognise prodromal signs, whether patients will comply with instructions to act upon first symptoms using a single blind prospective randomised study	Children with moderate asthma according to the American Thoracic Society criteria	Education sessions	Symptom identification, interpretation (comparison) and response	Education sessions: <ul style="list-style-type: none"> Information on asthma, symptoms, preventive measures, medication and asthma exacerbations Individual prodromal signs, which were identified together with the parents Instructions on dose of inhaled corticosteroids when signs occurred 	Nil	Primary outcomes: rate and severity of asthma attacks, frequency of disabilities, absence from school and parental absence from work due to asthma, registration of prodromal signs and compliance to self-treatment instructions; secondary outcomes: lung

								function and bronchial responsiveness
Gardner et al, 2016(29)	Asthma	A quality improvement project to address the need for information for parents and children with asthma	Children under the age of 18 who had been diagnosed with asthma, asthma exacerbation or status asthmaticus	Education sessions and materials (binder with large pictures)	Symptom recognition, interpretation (comparison) and response	<p>An individualized asthma resource binder:</p> <ul style="list-style-type: none"> • Basic asthma disease understanding • Medications and medication side effects • Symptoms and symptom control • Exacerbation recognition • Use of an asthma action plan <p>An individualized teaching session:</p> <ul style="list-style-type: none"> • Basic asthma pathophysiology • Medications <ul style="list-style-type: none"> ○ Methods to improve medication compliance ○ Demonstration of proper inhaler use • Symptom recognition and management: lifestyle change • Recognition of exacerbation: reflection on current hospitalization to identify early warning signs • Use of an asthma action plan: response when an exacerbation is recognized 	Health Belief Model(11)	(planned: hospital 30-day readmission rate (primary outcome), and satisfaction of physician and nurse, advanced practice providers, and residents)
Hendricson et al,	Asthma	Development of the patient education component,	Children aged 6 to 16 who had physician-	Education sessions and materials	Symptom recognition and response	Educational intervention on specific self-management skills using flip cards:	Social Learning Theory(31), Social	Parent and child subjective evaluation of educational

1996(30)		an individualized and bilingual program designed to reduce morbidity and improve quality of life among Hispanic children with chronic asthma	diagnosed asthma	(flip cards with illustrations, videotape, pamphlet)	(role modelling)	<ul style="list-style-type: none"> Recognizing asthma symptoms before they get out of control Correctly administering medicines as pre- scribed by the physician and managing side effects Promptly recognizing and responding to acute asthma symptoms that require emergency care Remaining calm and avoiding stress-inducing reactions when symptoms occur Minimizing exposure to triggers (precipitating agents such as smoke, mold, animal hair) Establishing appropriate levels of physical and social activities for the child Communicating effectively with health care personnel <p>Techniques incorporated into the intervention:</p> <ul style="list-style-type: none"> Role modelling: self-management behaviors (videotape) Building self-efficacy: hands-on practice with inhalers and peak flow meters and role-playing for communication when symptoms occur Contracting: written agreement 	Cognitive Theory(32)	modules, attrition rate and parent impression 1 year after program completion
Brandt et al,	COPD exacerbatio	A qualitative study of self-	Patients with COPD	Education sessions	Symptom recognition,	<p>COPD teaching plan:</p> <ul style="list-style-type: none"> Understanding COPD 	Collaborative Model for	NA

2013(33)	n: increased breathless, cough, sputum, fever and fatigue; orthopnea; decreased activity tolerance; poor sleep; change in mental status	regulation in older adults with COPD and development of a theory and evidence-based teaching plan to build practical self-regulation skills in patients with COPD			interpretation (comparison) and response	<ul style="list-style-type: none"> • Everyday management strategies • Symptom monitoring/self-observation <ul style="list-style-type: none"> ○ Keeping a symptom log until being familiar with baseline dyspnea and other symptoms ○ Common signs and symptoms of an exacerbation • Exacerbation triggers and how to avoid them • Exacerbation recognition/self-judgment: daily symptom comparison, contrasting new or different symptoms with baseline characteristics • Management of exacerbations/self-reaction 	Self-Management of Chronic Disease(34)	
Cardiovascular diseases								
Davis et al, 2019(35)	ACS	To evaluate the feasibility and acceptability of a nurse-delivered education and skill-building intervention designed to improve symptom recognition and interpretation	Women aged 35 years and older who had been hospitalized with a definitive diagnosis of ACS	Education sessions and materials (pamphlet and pocket card)	Symptom recognition, interpretation (comparison) and response	Two face-to-face teaching sessions: <ul style="list-style-type: none"> • Symptom recognition and interpretation <ul style="list-style-type: none"> ○ A standard pamphlet (Women, Heart Disease, and Stroke) and a pocket card (Know and Go: Heart Attack) ○ Individualized education on symptom experience and actions taken, comorbid conditions 	Nil	Feasibility, acceptability and satisfaction with the intervention; knowledge, attitudes and beliefs about ACS symptoms

		in women with recurrent ACS symptoms using a single group pre-post-test design				<p>that could mimic ACS symptoms, and misconceptions about ACS symptoms and care-seeking responses</p> <ul style="list-style-type: none"> ○ A symptom monitoring notebook with instructions to document recurrent symptoms • Individualized action plan <ul style="list-style-type: none"> ○ Timely and appropriate care-seeking behavior for recurrent symptoms ○ Reinforcement of information from the first session 		
Raczynski et al, 1999(36)	AMI: chest pain (primary symptom) and shortness of breath	Development of the theoretically-based Rapid Early Action for Coronary Treatment (REACT) intervention that addresses community organization, community education, professional education, and patient education	Community education: high-risk individuals, family members, and community residents; patient education: high-risk patients and their families	Education sessions and materials (flyers/brochures, posters, magnets and other "tokens"; video)	Symptom recognition and response (role modelling)	<p>Community organization:</p> <ul style="list-style-type: none"> • Engaging organizations and individuals in a collaborative effort to mobilize their resources and institutional structures to reduce AMI delay <p>Community education:</p> <ul style="list-style-type: none"> • Building awareness and knowledge about AMI and the problem of delay; • Recognizing AMI symptoms; • Modifying beliefs that may act as barriers to seeking treatment; • Building skills to improve behavioral intentions and actions; and 	Social Cognitive Theory(37), Self-Regulatory Theory(38), Community Organization Theory(39), Diffusion of Innovation Theory(40), Social Marketing Theory(41)	NA

						<ul style="list-style-type: none"> Increasing self-efficacy to respond rapidly to AMI symptoms <p>Provider education:</p> <ul style="list-style-type: none"> Improving understanding of factors related to patient delay Enhancing motivation to learn skills and intervene with patients Enhancing patient-centred counselling Impacting clinical practice <p>Patient education: interpersonal + impersonal</p> <ul style="list-style-type: none"> Changing patients' knowledge, beliefs, attitudes, skills, behaviors, and self-efficacy regarding prompt action for AMI symptoms Employment of patient-centered counselling, role-modelling, and behavioral rehearsal 		
Jurgens et al, 2013(42)	HF: dyspnea and fatigue	To test the efficacy of a HF symptom training program on patients' self-care ability and particularly their ability to recognize and respond to changes in HF symptoms	Patients with a confirmed diagnosis of chronic HF	Education sessions and materials (booklet)	Symptom detection, interpretation (comparison) and response	<p>HF symptom training intervention:</p> <ul style="list-style-type: none"> Weight scale HF self-care booklet Symptom profile: 3 symptoms with highest distress selected for clustering on symptom graph Symptom burden at rest Comparison of symptom burden after 6-min walk test with symptom burden at rest and discussion on symptom meaning and response 	Theory of HF Self-Care(43), Theory of Unpleasant Symptoms(44, 45), Uncertainty in Illness Theory(46-49), Self-Regulation Theory(24)	Time to first event of HF hospitalization, emergency department admission for HF or HF-related cause and death (primary outcomes); HF symptom awareness and self-care assessed at

		using a randomized control trial				<ul style="list-style-type: none"> Home visit to review symptom training 		baseline and 3 months follow-up
Other health conditions								
Hunt et al, 2015(50)	Concussion	To determine if a concussion-education video developed for high school athletes would increase the reporting of concussive injuries and symptom recognition using a cross-sectional, between groups design	High school athletes aged 13 to 18 years	Education materials (video)	Symptom detection, interpretation (comparison) and response	Concussion education video addressing questions pertaining to head injuries or concussions: <ul style="list-style-type: none"> What is a concussion? How do concussions happen? How do I know I have a concussion? What are the signs and symptoms of concussion? What is the importance of reporting my injury? Whom should I report my injury to? What is the difference between just getting hit in the head and having a concussion? How are concussions managed? When will I be able to play again? 	Nil	Knowledge of concussion symptoms, assessed before and immediately after watching the education video
Bonovich et al, 1990(51)	Labor: contractions, vaginal discharge and amniotic fluid	To test the effectiveness of an intervention developed to meet the specific needs of clinic patients in recognizing the signs of true labor	Patients in their first uninterrupted pregnancies who had reached 30 weeks' gestation	Education sessions and materials	Symptom detection, interpretation (comparison) and response	Education material: <ul style="list-style-type: none"> A printed list of instructions on how to detect signs of labor Education session: <ul style="list-style-type: none"> Reinforcement of correct knowledge recall about labor patients gained prior to the intervention and provision of only necessary information to fill in knowledge gaps 	Flanders' Analyzing Teaching Behavior(52), Redman's Principles of Patient Education(53)	Number of visits subjects made to labor and delivery by examining the registration records in the labor suite

		using an experimental design with one treatment group and one control group				<ul style="list-style-type: none"> • Instruction on distinguishing between Braxton Hicks contractions and contractions of active labor, changes in vaginal discharge (sights), distinguishing between involuntary urination and leaking of amniotic fluid (smell), and contraction pain and other senses (sensations) 		
Erikson et al, 2010(54)	Malaria	To develop a community intervention to improve first line case management of malaria in under-five children through primary caretakers in collaboration with local women groups and existing health centres and to evaluate its feasibility and effectiveness on anaemia, fever and malaria prevalence using a cluster-	Women leaders selected from village groups	Education sessions	Symptom detection, interpretation and response (role modelling)	<p>Training of health workers</p> <ul style="list-style-type: none"> • Theoretical training: lectures on principles of malaria case management including clinical diagnosis, treatment and follow-up • Practical training: management of suspected malaria cases in the outpatient department of the district hospital <p>Training of women leaders</p> <ul style="list-style-type: none"> • Theoretical training: same as training of health workers, with a focus on identifying fever cases that should be treated as suspected uncomplicated malaria or referred to health facilities as suspected severe malaria or other diseases requiring formal health care treatment • Practical training: observation of management of suspected malaria cases 	Nil	Proportion of moderate/severe anaemia in children aged 6-59 months (primary outcome), proportions of measured fever, malaria prevalence and reported fever during the last 48 hours, mean malaria parasite densities, mean haemoglobin values and mean weight, assessed pre- and post-intervention

		randomised controlled effectiveness trial						
Matin et al, 2020(55)	Neonatal illness: lethargy, chest indrawing, convulsions and difficulty breastfeeding	To enable reliable and consistent assessment of neonates for identification of signs of illness to facilitate early referral of sick neonates, especially during the critical first week of life	Women who gave birth at the study hospital	Education apps/devices (audio, images of danger signs)	Symptom detection, interpretation (comparison) and response	<p>A smartphone preloaded with an interactive app (the NeMo app)</p> <ul style="list-style-type: none"> • Pictures, symbols, and audio recordings in the local language • 4 qualitative danger signs, 2 images displayed for each sign: one showing a newborn exhibiting the danger sign and one showing a healthy infant <ul style="list-style-type: none"> ○ Lethargy ○ Chest indrawing ○ Convulsions ○ Difficulty breastfeeding <p>A wearable sensing band (the NeMo band) that measures breathing rate</p>	Nil	Knowledge of danger signs assessed at baseline and after training, observation of device use, usage and impression of device assessed using quantitative scales and qualitative interviews, responses to danger sign triggers assessed through qualitative discussion
Ziadé et al, 2021(56)	RA: joint pain and swelling	To evaluate the perceptions of patients with RA about self-assessment of their disease activity using DAS-28 after watching the educational video	Adult patients with RA	Education materials (video)	Symptom detection (demonstration)	<p>Education video:</p> <ul style="list-style-type: none"> • A short introductory note about the assessment of disease activity in RA • A demonstration of the evaluation of each of the 28 joints for pain and swelling, performed by a real patient with RA • An explanation about the final score calculation and the categorization into the disease activity levels 	Nil	Perceptions about self-assessment of disease activity using semi-structured interview

BCLE: lymphedema secondary to breast cancer treatment, BSE: breast self-examination, COPD: chronic obstructive pulmonary disease, ACS: acute coronary syndrome, AMI: acute myocardial infarction, CHD: coronary heart disease, EMS: emergency medical system, ED: emergency department, MI: myocardial infarction, HF: heart failure, RA: rheumatoid arthritis, DAS: disease activity score

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